

COMPARING COVID-19 VACCINES



This information is provided by the Delaware Division of Public Health based on the most recent information regarding the currently available COVID-19 vaccines.

All three vaccines have slight differences, but all have been proven to be highly effective in preventing serious illness, hospitalization, and death from COVID-19 among people who participated in clinical trials. This chart details the difference between each vaccine to help you discuss them with your patients. It is important to know that none of the COVID-19 vaccines infect the body with the live virus. They help the body fight it by stimulating the production of antibodies.

	MODERNA	PFIZER	JOHNSON & JOHNSON
How it works	mRNA*	mRNA*	Adenovirus-based**
How it is administered	Two doses, one month apart*	Two doses, three weeks apart*	One dose
Age limit	Must be 18 or older	Must be 12 or older	Must be 18 or older
How well it protects based on clinical trial data	<ul style="list-style-type: none"> • 100% effective in preventing death • 90% effective in preventing hospitalization** • 100% effective in preventing severe disease • 94.1% effective in preventing symptomatic COVID-19 	<ul style="list-style-type: none"> • 100% effective in preventing death and hospitalization • 99% effective in preventing severe disease • 95% effective in preventing symptomatic COVID-19 	<ul style="list-style-type: none"> • 100% effective in preventing death and hospitalization • 85% effective in preventing severe disease • 72% effective in the U.S. in preventing moderate-to-severe COVID-19
How long before protection kicks in	<ul style="list-style-type: none"> • Some protection 10 to 14 days after first dose • Full protection two weeks after second dose 	<ul style="list-style-type: none"> • Some protection 10 to 14 days after first dose • Full protection one week after second dose 	<ul style="list-style-type: none"> • Some protection 14 days after vaccine • Full protection in 28 days
How long vaccine vials can be stored and at what temperature prior to use/reconstitution	<ul style="list-style-type: none"> • 50° to -15°C (-58° to 5°F), frozen until expiration date*** • 2° to 8°C (36° to 46°F), refrigerated for up to 30 days 	<ul style="list-style-type: none"> • -90° to -60°C or (-30° to -76°F), ultra-frozen until expiration date*** • -25° to -15°C (-13° to 5°F), frozen for up to two weeks*** • Thawed in refrigerator, undiluted vials can be stored 2° to 8°C (35° - 46°F) for 30 days. After dilution 2° to 25°C (35° to 77°F) for 6 hours from the time of dilution. • Up to 25°C (77°F) (room temperature) for up to two hours 	<ul style="list-style-type: none"> • 35.6° to 46.5°F refrigerated for up to three months • 9° to 25°C (47° to 77°F) (room temperature) for up to 12 hours
How long vaccine vials can be kept and at what temperature after first dose withdrawn	2° to 25°C (36° to 77°F) (refrigeration to room temperature) for up to twelve hours	After dilution 2° to 25°C (35° to 77°F), use within six hours from time of dilution	<ul style="list-style-type: none"> • 2° to 8°C (36° to 46°F) (refrigeration) for up to six hours • Max 25°C (77°F) (room temperature) for up to two hours

* mRNA: These COVID-19 vaccines give instructions for cells to make a harmless piece of what is called the “spike protein,” found on the surface of the virus that causes COVID-19. Our immune system responds by making antibodies to protect against infection. The spike protein then dissolves and disappears.

** A small piece of genetic material from the coronavirus is inserted into a weakened version of a common cold virus called an adenovirus. The immune system responds by switching on the cells’ alarm systems to activate immune cells nearby. The immune cells spot the intruder proteins of COVID-19 to fight the infection.

* If it is not possible to follow the dosage intervals, the science is currently showing individuals can wait up to 42 days to receive the second dose.

** Based on the hospitalization of one person in the clinical trials.

*** Vaccine cannot be refrozen once thawed.